98-121

From: "McCarthy, Joe" <JMcCarthy@AGOC.com>
To: "Ron Parver (E-mail)" <rparver@fcc.gov>
Date: Mon, May 14, 2001 2:03 PM
Subject: FW: FCC survey information

> Mr. Parver
>
> On behalf of Armstrong Cable Services, attached hereto is an Amended
> filing to the survey requesting information in connection with the cable
> system capacity and retransmission consent relations with broadcasters
> concerning their digital signals. After further review, we reevaluated
> the actual and expected usability of our cable system services to include
> cable telephony, video on demand adn interactive television. Accordingly,
> the capacity figures reported previously for digital video and downstream
> services in questions 2 and 3 are amended in this filing. The attached
> worksheet reflects the changes which are identified in BOLD type. If you
> have any questions, please feel free to contact me. Thank you.
>
> Joseph F. McCarthy, III
>
> <<Channel Capacity Survey Form_16.xls>>

CC: "Hassler, Ed Jr." <ehassler@agoc.com>

Questions on Cable System Capacity and Retransmission Consent Agreements

Question 1

Please complete the following table with the total number of subscribers served by all of your cable systems and your best estimates of the percentage of your total subscribers in each year that will be served by cable systems of the specified capacity. For each year the column percentages for the five system capacity classes ("Under 500 MHz" to ">750 MHz") should sum to 100.

S SERVED AND % DISTRIBUTION BY SYSTEM CAPACITY

Cable System Capacity	**Yearend 1999**		**Yearend 2000**		**Yearend 2001**		**Yearend 2002**		**Yearend 2003**	
	Number	%	Number	%	Number	%	Number	%	Number	%
Cable System Capacity										
>750 MHz	4503	2.18%	33803	16.37%	69718	33.77%	91179	44.16%	91179	44.16%
750 MHz	113570	55.00%	113570	55.00%	113570	55.00%	113570	55.00%	113570	55.00%
Between 550 and 750 MHz	0	0.00%	0	0.00%	0	0.00%				
550 MHz	1707	0.82%	1707	0.82%	1707	0.82%	1707	0.82%	1707	0.82%
Under 500 MHz	86676	41.98%	57376	27.79%	21461	10.39%	0	0.00%		
Total		99.98%		99.98%		99.98%		99.98%		99.98%

Question 2

Please provide, for each of the five capacity classes and for each year, a breakdown of the total MHz usable for downstream transmissions. The breakdown should be based on a representative cable system in each size class, specifically the one with the largest number of subscribers. For the >750, <550, and 550-750 MHz capacity classes, please specify the capacity of the system for which the information is being provided.

If the total downstream capacity does not equal total capacity minus the bandwidth below 54 MHz, please explain the discrepancy. Also please note if any capacity above 54 MHz is used for upstream services. Please provide the total MHz expected to be used for analog video transmission, the total MHz expected to be used for digital video transmission, and the total MHz expected to be used for other purposes, and list the anticipated other services. The sum of the total MHz used for analog, digital, and other downstream services should equal total MHz usable for downstream transmissions.

Year 1999

Capacity of Representative Cable System	Specific Capacity	Total MHz usable for downstream transmissions	Total MHz expected to be used for analog video	Total MHz expected to be used for digital video	Total MHz expected to be used for other downstream services+
>750 MHz*	862 MHz	788	476	**108**	**204**
750 MHz		676	476	**108**	**92**
550-750 MHz**	N/A				
550 MHz		476	476	0	0
< 550 MHz***	450 MHz	376	376	0	0

+Identify any other downstream services

Cable Modems

Year 2000

Capacity of Representative Cable System	Specific Capacity	Total MHz usable for downstream transmissions	Total MHz expected to be used for analog video	Total MHz expected to be used for digital video	Total MHz expected to be used for other downstream services+
>750 MHz*	862	788	476	**108**	**204**
750 MHz		676	476	**108**	**92**
550-750 MHz**	N/A				
550 MHz		476	476	0	0
< 550 MHz***	450	376	376	0	0

+Identify any other downstream services

Cable Modems

Year 2001

Capacity of Representative Cable System	Specific Capacity	Total MHz usable for downstream transmissions	Total MHz expected to be used for analog video	Total MHz expected to be used for digital video	Total MHz expected to be used for other downstream services+
>750 MHz*	862	788	476	**108**	**204**
750 MHz		676	476	**108**	**92**
550-750 MHz**	N/A				
550 MHz		476	476	0	0
< 550 MHz***	450	376	376	0	0

+Identify any other downstream services

Cable modems

Year 2002

Capacity of Representative Cable System	Specific Capacity	Total MHz usable for downstream transmissions	Total MHz expected to be used for analog video	Total MHz expected to be used for digital video	Total MHz expected to be used for other downstream services+
>750 MHz*	862	788	476	**108**	**204**
750 MHz		676	476	**108**	**92**
550-750 MHz**	N/A				
550 MHz		476	476	0	0
< 550 MHz***	450	376	376	0	0

+Identify any other downstream services

Cable modems

Year 2003

Capacity of Representative Cable System	Specific Capacity	Total MHz usable for downstream transmissions	Total MHz expected to be used for analog video	Total MHz expected to be used for digital video	Total MHz expected to be used for other downstream services+
>750 MHz*	862	788	476	**132**	**180**
750 MHz		676	476	**132**	**68**
550-750 MHz**	N/A				
550 MHz		476	476		
< 550 MHz***	N/A				

+Identify any other downstream services

Cable Modems, Cable Telephony, Video-on-Demand and Interactive Television

* fill in a capacity greater than 750 MHz if applicable, or enter NA if no systems in the >750 MHz category

** fill in a capacity between 550 and 750 MHz if applicable, or enter NA if no systems in the 550-750 MHz category

*** fill in a capacity below 550 MHz if applicable, or enter NA if no systems in the <550 MHz category

Please explain here any discrepancies between capacity usable for downstream transmissions and total capacity minus the bandwidth below 54 MHz.

The spectrum from 88-108MHz was not considered useable.

Question 3

For each capacity class and year entered in question 2, please provide (i) information on the digital modulation techniques you intend to use and (ii) a further breakdown of the total MHz expected to be used for downstream digital video transmission. To answer this question, use the same representative cable systems that you used in question 2. What modulation technique do you expect to use (e.g., 64 QAM, 256 QAM)? How many MHz do you anticipate devoting to HDTV transmissions and how many HDTV program streams do you anticipate transmitting in each 6 MHz of spectrum devoted to that purpose? How many MHz do you anticipate devoting to standard definition television program streams and how many such program streams do you anticipate transmitting in each 6 MHz of spectrum devoted to that purpose?

NOTE: If you plan to use different modulation techniques on a single system or on different systems in the same capacity class, please explain below. If the number of HDTV or SDTV program streams per 6 MHz is expected to vary, please indicate a typical figure in the table and explain the range of variation below.

YEAR 1999

Capacity of Representative Cable System	Specific Capacity	Total MHz expected to be used for digital video transmission (from question 2)	Modulation technique	MHz expected to be devoted to HDTV transmissions(broadcast or nonbroadcast)	HDTV Program streams per 6 MHz	MHz expected to be devoted to standard definition video	SDTV program streams per 6 MHz
>750 MHz*	862	**108**	64QAM	0	0	108	8
750 MHz		**108**	64QAM	0	0	108	8
550-750 MHz**	N/A						
550 MHz		0					
<550 MHz***	450	0					

YEAR 2000

Capacity of Representative Cable System	Specific Capacity	Total MHz expected to be used for digital video transmission (from question 2)	Modulation technique	MHz expected to be devoted to HDTV transmissions(broadcast or nonbroadcast)	HDTV Program streams per 6 MHz	MHz expected to be devoted to standard definition video	SDTV program streams per 6 MHz
>750 MHz*	862	**108**	64QAM	0	0	108	8
750 MHz		**108**	64QAM	0	0	108	8
550-750 MHz**	N/A						
550 MHz							
<550 MHz***	450						

YEAR 2001

Capacity of Representative Cable System	Specific Capacity	Total MHz expected to be used for digital video transmission (from question 2)	Modulation technique	MHz expected to be devoted to HDTV transmissions(broadcast or nonbroadcast)	HDTV Program streams per 6 MHz	MHz expected to be devoted to standard definition video	SDTV program streams per 6 MHz
>750 MHz*	862	**108**	64QAM	0	0	108	8
750 MHz		**108**	64QAM	0	0	108	8
550-750 MHz**	N/A						
550 MHz		0					
<550 MHz***	450	0					

YEAR 2002

Capacity of Representative Cable System	Specific Capacity	Total MHz expected to be used for digital video transmission (from question 2)	Modulation technique	MHz expected to be devoted to HDTV transmissions(broadcast or nonbroadcast)	HDTV Program streams per 6 MHz	MHz expected to be devoted to standard definition video	SDTV program streams per 6 MHz
>750 MHz*	862	**108**	64QAM	0	0	108	8
750 MHz		**108**	64QAM	0	0	108	8
550-750 MHz**	N/A						
550 MHz		0					
<550 MHz***	450	0					

YEAR 2003

Capacity of Representative Cable System	Specific Capacity	Total MHz expected to be used for digital video transmission (from question 2)	Modulation technique	MHz expected to be devoted to HDTV transmissions(broadcast or nonbroadcast)	HDTV Program streams per 6 MHz **(256 QAM)**	MHz expected to be devoted to standard definition video	SDTV program streams per 6 MHz
>750 MHz*	862	**132**	64QAM	24	2	108	8
750 MHz		**132**	64QAM	24	2	108	8
550-750 MHz**	N/A						
550 MHz		0					
<550 MHz***	N/A						

* fill in a capacity greater than 750 MHz if applicable, or enter NA if no systems in the >750 MHz category
** fill in a capacity between 550 and 750 MHz if applicable, or enter NA if no systems in the 550-750 MHz category
*** fill in a capacity below 550 MHz if applicable, or enter NA if no systems in the <550 MHz category

Please describe here any situations in which you plan to use different modulation techniques on a single system or on different

systems in the same capacity class.

If the number of HDTV program streams per 6 MHz is expected to vary, please explain the range of variation here.

Question 4

On Chart 4A below, please list the cable systems and television stations for which you have negotiated retransmission consent agreements that include carriage of digital transmissions by the station. For each television station, please include in parentheses the network affiliation if any. Please include, if known, the capacity of each system in MHz, the Designated Market Area ("DMA") in which the station is located, when digital carriage is scheduled to commence, the modulation technique you intend to use (e.g., 8 VSB, 64 QAM, 256 QAM), the format (480P, 720P, 1080I, something else) of the signal as received from the broadcaster, and the format that you plan to use for retransmission through the system to subscribers.

On Chart 4B below, please provide the best information available at this time on pending retransmission consent negotiations, if possible. If you have pending negotiations with respect to more than 10 systems, please provide information for the five largest and the five smallest systems, measured by number of subscribers.

Note: If you have signed digital retransmission agreements with a television station for more than one cable system, please make a separate entry for each cable system.

Please use additional pages if necessary for response.

CHART 4A: COMPLETED RETRANSMISSION CONSENT AGREEMENTS

DMA	Television Station (with affiliation status)	Cable System	System Capacity (MHz)	Date Carriage Commenced or is to Commence	Modulation Technique	Broadcast Transmission Format	Retransmission Format	Number of Stations in DMA now transmitting a digital signal

CHART 4B: RETRANSMISSION CONSENT AGREEMENTS IN NEGOTIATION

DMA	~~Station (with affiliation~~	~~Cable System~~	System Capacity (MHz)	~~Commenced or is to~~	~~Modulation Technique~~	Broadcast Transmission Format	~~Retransmission Format~~	Stations in DMA now transmitting a

spectrum (analog and digital) is owned by the Operator from the point of signal receipt (headend).

Huntingdon, WV and Erie, PA.